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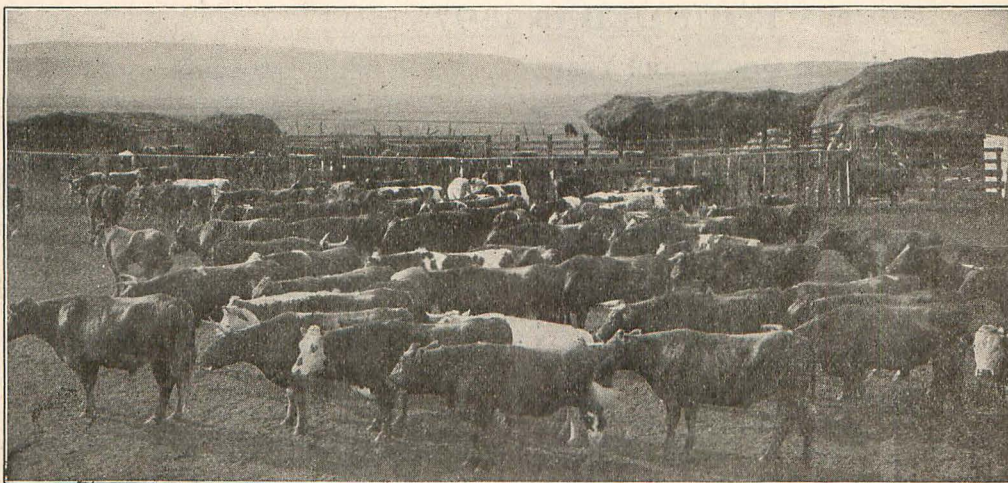
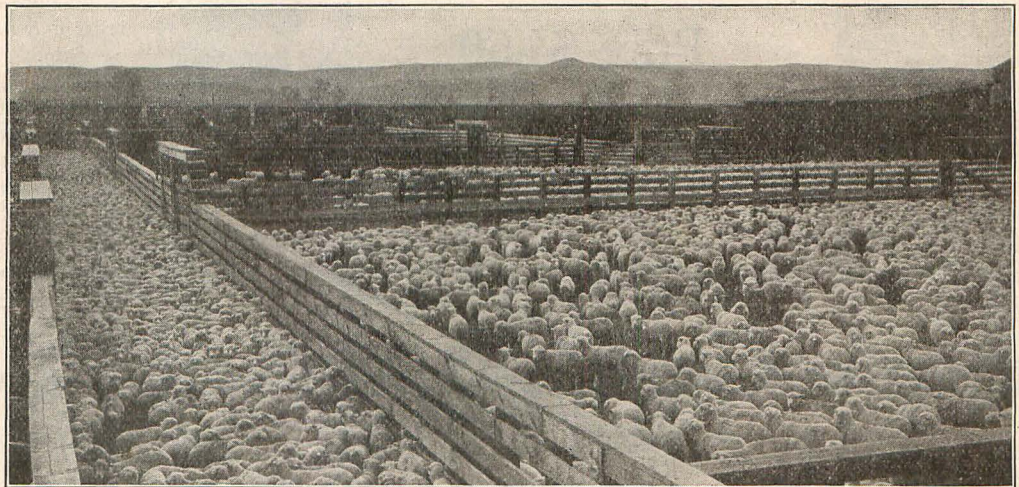
THE NORTH DAKOTA FARMER



"THE NORTH DAKOTA FARMER FOR NORTH DAKOTA FARMERS"

Vol. 14 No. 6 Lisbon, North Dakota, December 15, 1912 50 Cents A Year

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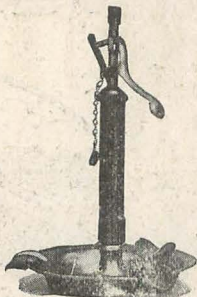
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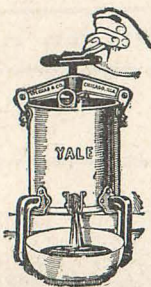
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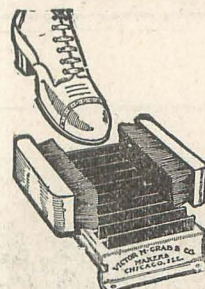
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THE NORTH DAKOTA FARMER

Vol. 14, No. 6

LISBON N. D., DECEMBER 15, 1912

50 Cents a Year

Little Steps to Lead the Farm Boy Upwards

James J. Hill, of the Great Northern
Railway System

In all my life I have never been able to understand why a boy of the country should be ashamed or afraid of farm life. I have believed if he felt that way he ought to be ashamed of himself; ashamed of his unnatural contempt for the magnificent opportunities at his command.

more, the majority of the successful men of the world are not lawyers, bankers, merchants or railway men, but soil cultivators.

I think when a farm boy grasps all that statement means, he ought to feel an extraordinary pride in the work ahead of

as a food producer. It would be foolish for me to say that if he wishes to be a lawyer he should not. If railway work tempts him, he has the right to seek it, if he is willing to make himself capable.

But—the farm, the cattle, the forest, are worthy his consideration, and if he is willing to take the little steps on and upward into the great world of food-producing, nothing can hinder his progress, and he will come to the day in which under the sun and by the waving fields of grain he will raise his hat and say:

"I am thankful I stood by and for the soil."



Third Annual Boys' and Girls' Institute, Held at the North Dakota Agricultural College. These Boys and Girls are the Winners at the Industrial Contests Held Thruout the State the Past Fall, which over 13,000 entered.

The saying is an old one that a large percentage of the famous or successful men of the world began their careers on the farm. But I do not believe it has ever been put just as I mean to put it here:

The truly successful men of the world have been born and are born on the soil, and they are raised on the soil before they come to any other occupation. Further-

him instead of sulking at the plow or in the stables and pining for a life not one-half as comfortable as what he is enjoying.

For this reason, too, I have thought it well to present a few plain opinions of my own as to the "little steps" by which a farm boy can lift himself upward into, not only greater understanding of the soil, but greater appreciation of his own character

The first step upward in farm work is not to be ashamed of it or anyone connected with it. Few things hurt so much in progress as being ashamed of what one is doing. The farm boy who, deep in his heart, feels ashamed of his work is discounting his own chances for success before he has started. He is deceiving himself and cheating the farm of the best

it might produce, if only he would throw heart into the work.

To be ashamed of work is to imply that it is dishonorable. Because one's hands become soiled and knotted in farm work is not a cause for shame. The soiling and the knotting are badges of honor. To wear rough clothes because they are the most practical, is not a cause for shame. They are the right uniform of hard and honest labor. Shame begins only with a sense of dishonor, and in farm work such a sense cannot exist except thru idleness, neglect of duty, failure to make the most of chances ahead.

A second step upward is to know a little better each succeeding day the character of the work to be done. If a potato field does not look well today, what can be done to improve it tomorrow? Potatoes are a rich crop when well cared for. Yet they must not have too much water, the soil in which they are placed must be studied, and the vine cultivation during growth needs careful attention.

Still this is not all to be considered in regard to a potato—I might have selected an ear of corn for the illustration just as well—for the potato has a history. Altho frequently called the "Irish potato" because of its free cultivation in Ireland, that is not its original home. The name comes from the Spanish patata, "white potato," as distinguished from the batata or "sweet potato."

The plant belongs to the nightshade family, and is a brother to tobacco, belladonna, tomato, eggplant, and pepper. It was cultivated in South America before America was discovered, was taken from Peru to Spain, and from Spain passed to other countries of Europe. Virginia gave it to Ireland, and for a long time it was only fed to cattle and swine. In those days but two varieties of potatoes were known, the red and the white, but today the experimental farm stations of Europe and the United States, where many boys work who wish to understand the farm rightly, produce from 150 to 200 varieties.

The soil best suited to the crop is a rich, sandy loam, well supplied with organic or fertilizing matter, and well drained. This soil must be kept rich by careful preparation with barnyard waste or fertilizers containing nitrogen, phosphoric acid and potash applied each year previous to a crop. The land should be plowed as deeply as possible without turning up the subsoil. There is a particular way for planting the tubers, distance apart and depth, and so on. The yield may run from sixty to three-hundred bushels an acre according to the work and brains put into the cultivation.

I have told only a very little of potato cultivation. Every day and every week earnest men are trying to find out more about it—how much better a potato can be produced. Is it not worth while when one considers that it is such study that makes

farm work a fascinating pursuit and gives to the world food of greater quantity and higher quality?

But this knowledge of the potato is not to be gained in one day. It comes only thru taking one little step forward each day in knowledge about it and applying that knowledge to cultivation. The same is true of corn, wheat, oats and barley, peas and beets. Each has its peculiar mystery of cultivation, each its own needs.

Yet these growths of the fields cannot unfold their mysteries until the young farmer begins to study them. They will not approach him first. He must seek them. The more persistent his effort, the more readily will the inner hearts of the cereals and vegetables be opened. The potato will no longer appear as an ugly, dirty thing, or the wheat as chaff.

A third little step upward in gaining knowledge of the soil and farm life is not to be afraid of consulting and studying books. Books cannot reveal it all, but they offer an immense amount of knowledge that can be applied to experimental work, and which also gives tone to conversation and leads to steady improvement in thinking and acting. Our best farmers have never been those who despised books. The successful young and old farmers are those who take the book knowledge and join it to their actual experiences in the fields each day.

The kind of books, magazines and other periodicals to be read are many. Soil culture, water drainage, forest cultivation, cattle breeding, seeds, dairying, are only a few of the hundred and one topics that farm life calls upon the soil tiller to understand. Many of these book topics are helped out by frequent conversation with other farm workers to ascertain what their experiences have been.

This talking to, listening to, others in order to gain the benefit of their experiences is a phase of farm life I would have no boy forget. It is not a safe proposition to think that we know it all. In fact, that is a most dangerous proposition. We must consider that others frequently know as much as we, if not more, and that any interchange of ideas is certain to prove beneficial.

One of the boy corn-club organizations that I know of has a fortnightly meeting for no other purpose than to have its members explain to each other what experiences they have been passing thru. One tells of his mistakes and the other of his successes, and all gain valuable information thru this frankness of expression.

A last little step upward for a farm boy to consider is that this great globe of ours on which grow things to eat, is one of the profoundest mysteries ever set before man. Even supposing that man has been on its surface ten thousand or twenty thousand years, or longer, he yet does not know one-tenth of the truth as to why a rose grows,

or why corn tassels, or why trees have rings, or why one soil will do this and another a rod away will not.

The magic of farming, the great glory of it, lies in gaining more of this knowledge. In doing so the young farmer adds to the world's supply of food and lifts himself daily into higher rank in the noblest calling given to man.

ANNUAL REPORT OF SECRETARY OF AGRICULTURE

The sixteenth annual report of the Secretary of Agriculture, just made public, begins with a series of short paragraphs in which some important agricultural truths are strikingly expressed. It proceeds with the customary review of the agricultural production and foreign trade of the year and contains some results of an investigation into local conditions affecting agricultural credit, the usual condensed statements of the work of the bureaus during the year, and a long account of the work and achievements of the department during the 16 years thru-out which Secretary Wilson's service has extended.

What are termed brief comments are expressed as follows:

The most effective move toward reduced cost of living is the production of greater crops. This is attributable to the work of the Department of Agriculture, the agricultural colleges and experiment stations, and the help of the press in publishing every movement to help the farmers. Demonstration work in southern States in the field has been of immediate benefit. The South has increased the food supply very much in the last few years. The movement ordered by Congress to take farm demonstration into all northern States will bring more food into our markets. Our fields can and will steadily increase their output in coming years as ways and means of growing heavier crops become better understood. The Nation forgot its farmers in the general scheme of education of past years; few philanthropists thought of them when giving for education. Congress is good to them. They are waking up and thinking for themselves.

The sugar crop from the beet was 600,000 tons a year ago; it is 700,000 tons this year. The sugar comes from the carbon-dioxide of the atmosphere, taking no valuable plant food from the soil. The process of growing is intensive agriculture, something new to all but our gardeners, and prepares the soil for increased yields of all other crops.

One hundred and sixty-three thousand square miles have been cleared of the fever tick in the Southern States, equal to the area of three States. The farmers there are bringing in improved stock and will soon contribute materially to the meat supply.

Seven hundred acres of Egyptian and other long-staple cotton are being grown on the Colorado River in southern California, under research conditions that give good promise of eventually supplying the demand for such fibers. Thread makers of Europe are here inquiring into future supplies of long-staple cotton. The market waits for the scientist to do his work.

When the Panama Canal is open for business our bulbs and beet seed will come from the Pacific coast.

The leading specialists of the Department of Agriculture educate their assistants. The outside world wants them and pays more than the law permits being paid in the Government service.

The Food and Drugs Act is exacting on department time; 1,459 violations were sent to the Department of Justice during the last year—25 per cent more than in the year before. Jail sentences are now being imposed.

Our farmers get only half crops on the average, or 10 tons of beets from an acre. They are learning how to farm intensively and will grow twice this tonnage in a few years, when they will not fear reduction of duties.

Our dry-land problems will be measurably solved thru alfalfas from Siberia and nonsaccharine sorghums from Africa.

Congress has given us law to keep out diseased and insect-infested plants.

Farm demonstration in the fields is being organized in all the northern States, Congress providing.

The field is the best classroom for instruction in practical agriculture.

Department study of poultry and eggs will help to get these foods to market in good condition.

The sea is the great reservoir of potash. The kelp plant gathers it. We gather the kelp and extract.

Two feet of woven wire and three barb wires keep dogs out of a sheep pasture. Dogs outnumber sheep in many States, and we have not learned to eat dogs as they do in some European countries. The reason given by most farmers why they do not keep sheep is "the dogs." Kansas had, in 1910, 175,000 sheep and 199,000 dogs, Coburn tells us.

The town does not need the retired farmer, while the farm needs his experience and his capital. A retired farmer is capital going to waste.

Taking care of the soil is the first consideration in conservation of our resources.

Denmark buys our mill feeds and sells \$40,000,000 of dairy products to Great Britain.

Bookkeeping will soon be as common on the farm as in the factory. It is just as important for a farmer to know what it has cost to produce a given crop as for the manufacturer to know the cost of making the article he sells.

Most productive of all agricultural years in this country has been 1912, de-

clares the report. The earth has produced its greatest annual dividend. The sun and the rain and the fertility of the soil heeded not the human controversies, but kept on working in co-operation with the farmers' efforts to utilize them. The reward is a high general level of production. The man behind the plow has filled the Nation's larder, crammed the storehouses, and will send liberal supplies to foreign countries.

The prices at the farm are generally profitable and will continue the prosperity that farmers have enjoyed in recent years. The total crop value is so far above that of 1911 and of any preceding year that the total production of farm wealth is the highest yet reached by half a billion dollars. Based on the census items of wealth production on farms, the grand total for 1912 is estimated to be \$9,532,000,000.

During the last 16 years the farmer has steadily increased his wealth production year by year, with the exception of 1911, when the value declined from that of the preceding year. If the wealth produced on farms in 1899 be regarded as 100, the wealth produced 16 years ago, or in 1897, is represented by 84, and the wealth produced in 1912 by 202.1. During the 16 years the farmers' wealth production increased 141 per cent.

The wealth production on farms during the last 16 years reached the grand total of more than \$105,000,000,000. This stream of wealth has poured out of the farmers' horn of plenty, and in 16 years has equaled about three-quarters of the present national wealth.

In conclusion, the Secretary anticipates the close of his term of service on the 4th of March, as follows:

"The record of 16 years has been written. It begins with a yearly farm production worth \$4,000,000,000 and ends with \$9,532,000,000. Then farmers were loaded with debts that were a painful burden; prosperity followed, and grew with unexampled speed. Then the farmer was a joke of the caricaturist; now he is like the stone that was rejected by the builder, and has become the headstone of the corner. Beginnings have been made in a production per acre increasing faster than the natural increase of population. There has been an uplift of agriculture and of country life.

"In this movement the department has been gradually equipped to occupy a foremost place. It came to learn and it remained to teach. Its influence penetrates the remotest neighborhood. It performs a mission of welfare and happiness to farmers and to the whole Nation. The millions of dollars that it costs are returned in tens of millions of wealth saved and wealth produced.

"The department is prepared to continue and increase its public service. During 16 years it has progressed from the kindergarten, thru the primary, middle,

and upper grades of development, until now it has a thousand tongues that speak with authority. Its teachings, its discoveries, and its improvements are permeating the national agricultural life. The forces that are at work must cause ever-increasing results.

"The great and growing movement carried on by the department for agricultural betterment has not been sustained solely by one man, nor by a few men. A choice corps of scholarly experts in their special lines of endeavor has been growing in membership, in breadth of view, and in the practical application of their efforts. They have been and are men both good and true, men with high ideals, often sacrificing greater remuneration in private employment for love of the great results of their public service. No great work can be begun nor sustained by this department without such men.

"Men grow old in service and in years, and cease their labor, but the works of their labor and the children of their brains will live on; and may, whatever of worth their is in these, be everblooming."

CARE OF FARM MACHINERY

I.

McNeal C. James

No other one thing has had as much to do with making farm work more pleasant and profitable as the introduction of modern farm machinery. There is much less backache and drudgery in harvesting an acre of wheat today with the up-to-date binder than there was when the sickle or cradle was used. It is said that in 1850 it took on an average of three hours time to grow, harvest and thresh one bushel of wheat, while in 1899 it required ten minutes.

Some one has said that "Machines are agents for economizing human labor and improving upon it." This statement will aid us in an appreciation of the great importance of machinery on the farm. In order that the farmer may use it he is obliged to invest a considerable sum of money both for the original cost of this machinery and in the repairing of same. It has been said that "The greatest factor in the usefulness of a machine is the care that is taken of it."

This fact is not appreciated by the average farmer in our state. The usual way is to allow all tools to remain out of doors, scattered around the front door yard or in the barn yard, or even out in the field where last used. This practice cannot be too strongly condemned. In the first place, it has been proven by experiment that an average machine will last twice as long when well cared for as when allowed to remain out of doors when not in use.

It costs about \$1,000.00 to stock up with machinery on the average farm of 160 acres, where some rotation of crops is prac-

ticed. A shed about 40x20 feet would be large enough to house all these tools. It would cost about \$200 for lumber. This shed ought to last at least 20 years. There would possibly be some repairs upon it. If it lasted this length of time the cost of housing the machinery of the farm would be not much more than \$10 per year. There is an estimate in Bailey's Cyclo-pedia of Agriculture of a net gain of \$692 saved in ten years on an average farm of 160 acres by housing such machinery.

Did you ever leave your pocket knife or pair of scissors out of doors in the grass? If you did you have found that they were rusted when you went for them. Well, this is what takes place with the machinery. The steel rusts. This causes the tools to work hard at first, and later

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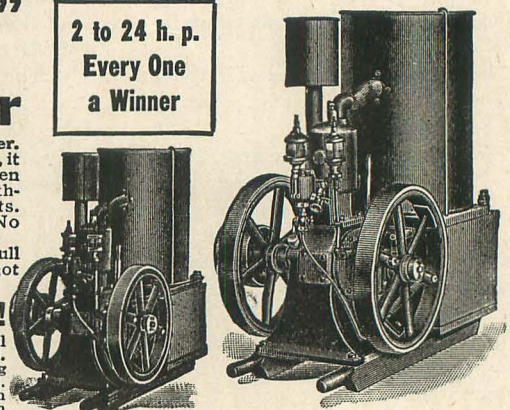
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on often causes them to break. Then the wood of the machinery rots at the bolt holes and warps so that it is much damaged. These things can well be avoided by putting the machinery in sheds.

There are also other advantages in housing farm tools. There is danger that tools around the barn yard will be broken by some one driving over them, or by stock running into them. This, of course, is very dangerous, for horses are often injured for life by running into machinery. If put into a shed, the farmer will always know where the implement is, and if he wishes to do some repairing upon it during the winter he can do so. One of the most important benefits of so treating tools is that the farm will always look much neater and more homelike than when tools are scattered all over the place. Nothing gives a farm home a more careless, untidy or repellent appearance than to see machinery standing around in every direction one looks.

Often it is the wornout implements that are standing in the front door yard, along the road and in other places where they should not be. The writer has seen as high as four old binders, plows, etc., in one front door yard in North Dakota. My! what want of pride in home; what lack of taste is shown by such conditions!

How much better it would be for the farmer to treat his discarded tools in a manner similar to that in which old bicycles are handled in the second-hand store. Old wheels that come in are taken apart, the handle bars put in one place, the frames in another place, the chain in another, the bearings in another, and so on, each piece having a particular place of its own. When a wheel is brought in to be repaired the needed part is easily found without search. The farmer should take his wornout machinery apart, save all the bolts, burrs and other parts which are liable to be needed. The rest should be store in a place chosen for it and sold for old iron when possible.

Another important thing in the life of machinery is the liberal use of oil on the

parts that wear one upon the other. This destroys the friction in these parts and causes the machine to run easier and to wear well. Oil is much cheaper than machinery. When plows, cultivators, and the like, are not in use the brightened surfaces should always be oiled with oil or axle grease, which keeps them from rusting.

Probably no other waste on the average North Dakota farm is more noticeable than the careless way in which the farmer treats his tools, and no other waste easier to avoid.

A DISCUSSION ON THE POTATO

D. A. Taylor, Oakes, N. D.

Editor N. D. Farmer:

Every little while we see an article in the farm papers advising the farmers to plant large, well-shaped potatoes, the idea being to improve the potatoes by seed selection as they would corn. Some of these articles are very convincing but I believe they do a great deal of harm.

I contend that neither the size, shape, color, nor quality of a variety of potatoes can be changed by selection of the tubers for planting. I challenge any one to a debate on this subject thru the North Dakota Farmer.

We can not increase the size of a variety by continually selecting the largest tubers for planting. Why? Because the tuber is not a seed but an underground stem and the eyes are nothing but buds the same as buds on a willow tree and it is just as reasonable to claim that a giant willow tree could be produced by successively planting a large cutting.

I have great faith in the laws of nature. Nature has provided us with a method of perpetuating a variety and in planting the tubers we are following this method.

Nature has also given us a method of getting a variation and by planting the seed that grows on the top of the vine we follow that method. Every plant that is raised from the seed is a new individual and may differ more or less from the parent but the tuber is not a seed, but it is a part of the first plant of that variety that was ever raised.

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N. ANDERSON

946 Barry Ave.,

Chicago, Ill.



We may truly say that every Early Ohio potato that was ever raised grew on the same plant or part of the same plant. By planting the tuber the variety is perpetuated just as truly as a variety of apples is perpetuated by grafting.

If potatoes can be changed in size in this way they can be changed in other ways and if this is the case, is it not strange that they have not changed so much that it would be hard to tell what variety they belong to?

But if some one who knew the Early Ohio Potato twenty years ago and had not seen one since should see a car load from anywhere in the world he would say—why, there is a car of Early Ohio potatoes, the first I have seen for twenty years and they look just the same as ever. There is one way we can "run potatoes out" by planting the small ones and this is the way. We will take ten small Early Ohio potatoes and in with these we will put one large "Lady-Finger" potato. We will plant these in eleven hills and probably when we dig them we will have thirty large Early Ohio and ten small ones, and one large Lady Finger and twenty small ones. The next year we plant the ten small Early Ohios and the twenty small Lady-Finger potatoes and get ten small Early Ohio potatoes and four hundred small Lady-Finger potatoes. Every year the proportion of the poor variety would be increased until a real Early Ohio would be a curiosity.

But if the variety is pure they can not be run out unless by some disease.

BOYS' AND GIRLS' INSTITUTE [W. C. Palmer, Agri. Ed., N. D. A. C.]

The Boys' and Girls' Institute is a meeting of the winners in the school children's county corn, potato, butter, bread, and sewing contests at the North Dakota Agricultural College.

These contests are conducted by the county superintendents. The corn contests, for instance, are managed as follows: The county superintendent finds out how many of the boys and girls attending school want to grow corn. This number is reported to the Agricultural College Extension Division. The Director, Mr.

Randlett, sends the county superintendent enough seed corn to furnish each one from six to seven hundred kernels. In some counties as high as one thousand have entered the corn contest.

In the fall a county contest is held. Prizes are offered for corn, potatoes, bread, butter and needle work. These prizes include from one to ten trips to the Boys' and Girls' Institute and in many cases cash prizes and merchandise are also offered. These winners come to the Agricultural College for a week's course in Agriculture and Home Economics. One hundred and eight came this year.

The following lessons were given for both boys and girls: Dairying, Small Fruit, Poultry, Horses, Corn, How Motion Pictures are Made. The following for boys only: Crop Rotation, Milk Production, Types of Cattle, and Farm Devices. The following for girls only: The Value of Home Economics Education, Bread Making, Good Health, Domestic Art, and Sanitation. The lessons were made simple and comprehensive—a good deal of demonstration material was used so that a great deal is accomplished in the space of a week.

The lectures and laboratory work was given in the forenoons. The afternoons were devoted to games and recreation; the boys using the armory for indoor baseball, etc., while the girls used the gymnasium in Ceres Hall. In the evening entertainments were given. One was to represent what a country school can do, in getting up an entertainment. The band, the play, the recitations were all given by boys and girls from the country. Another entertainment was to illustrate what a church entertainment could be made. The program included moving pictures, games and a social hour.

Some of these boys and girls had never been on a train before. It proved to be quite an event to all of them. The trip gives them a much different idea of farming and home making. Meeting the experts in the various departments, getting small glimpses into the big realm of

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We also tan cattle hides into Oak-tanned harness leather and raw hide lace leather; so if you use any leather for repairing your harness with it will pay you to send us a hide and let us tan it into leather for you, and you can save money by having hides tanned.

Send for our free price list and shipping tags and we will explain to you how you can save money by dealing direct with us. We have been in business here since 1904 and have one of the largest custom tanneries in the northwest. We are paying the highest market prices for hides and furs and keep a line of harness leather, lace leather and robes for sale.

THE LISBON TANNERY, Otto Jenson, Proprietor,

LISBON N. D.

agriculture and home making impresses on them that farming and home making are important lines of work—work that demands the best brain, brawn and training—work that is of the highest importance, fundamental to society and progress. Civilization will be in proportion as the farmers are intelligently trained for this most important work.

These boys and girls are the leaders in North Dakota agriculture. They have introduced corn onto the North Dakota farms. The farmers believed that corn would not grow, but the boy and girl were willing to try. They were supplied with seed corn and directions. They planted the corn and attended it. It grew, and yes, matured, and that clear up to the Canadian boundary. The seed sent out by the Agricultural College was carefully selected as to its adaptability to the various localities. In 1912, thirteen thousand were enrolled in the industrial contests: in 1911, eleven thousand; in 1910, ten thousand; in 1909, eight thousand. Of this number about 85% were in the corn contests. These corn patches, while small, demonstrated that corn could be grown, and more than that it furnished seed. In some cases several bushels were saved. The next year the corn patch grew to a corn field. The corn patch not only demonstrated that corn could be grown,

but the wheat that grew on the corn patches the next year was usually outstandingly better than that on wheat land, thus demonstrating the value of corn as a rotation crop.

PICTURE PLOTS

Great Demand for Good Scenarios for Motion Picture Exploitation

To the minds of most of us the words "moving pictures" suggest nothing but a cheap form of entertainment, designed particularly for those who can neither afford nor appreciate the "better" things in the show line. We sneer at the crowds going and coming from the nickelodromes and kindred places, altho we must confess that we are often compelled to sit up and take notice at the "motion plays" that are presented after the acts at the high-class vaudeville theatres.

That anything higher than mechanical art enters into the production of the films that make these "plays" possible we little dream, altho it is a fact that a considerable portion of the literary folk of the country are daily taxing their imagination in efforts to make good films and, incidentally, to enlarge their bank accounts.

"That the motion picture, in recent years, has taken its place in the amusement world is clearly established. Briefly, it bears to the stage production the same relation the short story bears to the full volume novel. It differs chiefly from the stage play in that no lines are introduced. Despite this limitation and despite the brevity and low price at which this entertainment is offered to the public, film manufacturers require that their product must qualify with the ever ascending standards, dramatically, artistically and morally. To

this end the manufacturers are spending thousands of dollars each year to obtain the most skillful producers, the best dramatic talent and the most effective stage devices in the production of the pictures. The same is true of the story which the picture portrays.

"The writing of stories or plays for modern picture production is practically a new profession. Writers of successful motion picture plays find their work constantly in demand and at good prices. The field is not crowded with successful authors and many who are able to produce available plays have not yet grasped the first principles of the moving picture drama, nor do they seem to have any inkling of what the manufacturers require. Many of these have the qualities, imagination, talent and ingenuity which make for success in this line, some of them having won success in the magazine field.

To show the desire of the manufacturer to get wholesome pictures, the following extract is given:

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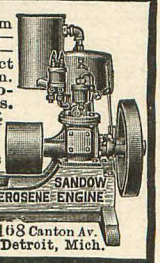
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North Dakota Farmer

Entered as second class matter in the postoffice at
Lisbon, North Dakota.

PUBLISHED EVERY MONTH

W. G. CROCKER, PUBLISHER.
Lisbon, N. D.

E. F. Ladd, Editor FARGO, N. D.

BUSINESS MANAGEMENT, LISBON, N. D.

ASSOCIATE EDITORS:

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Remittances should be made by Draft, Post-office Order or Express Order.

All Articles and Editorial Matter should be addressed to E. F. Ladd, Fargo, N. D.

Address all business correspondence to the Lisbon office.

Vol. 14 DECEMBER, 1912 No. 6

Begin a farm account now.

Be sure that a patch of alfalfa is included in the plans for the coming year.

Why blame the soil for not yielding a full crop when we are continually placing in the soil all manner of diseases like wilt and smut?

The amount saved already by the very mild winter is almost enough to build a silo. The number of silos in the state will be more than trebled the coming year. Will you be one to build one?

The same soil, the same rain, the same sun and the same atmosphere, that produce the 40 cent corn will also produce the five-dollar corn for seed. The difference is in the farmer's head work.

Over one hundred boys and girls departed for their homes after their Institute at the A. C., bearing the following message to their parents and friends: "D-i-d-i-ver-si-fy! Corn, alfalfa, pigs and rye!"

The island of New Zealand exported last year 16,000 tons, mind you, of butter, some of which undoubtedly found its way into North Dakota. When North Dakota exports as many pounds of butter for each inhabitant, as did New Zealand, her prosperity is assured.

If you have a leader of the right "stuff" in your community, give him every encouragement for a system of co-operation. Let your community be known for its high grade percherons or holsteins, its consolidated school or lyceum, its well-made roads or groves of trees, or all of these and more.

Would you start the New Year right, just renew your subscription to the N. D.

F. and help us start in better shape. To show our appreciation for your promptness we will extend your subscription an extra six months if the remittance is received before the 15th of January, and this offer is mentioned.

Attend, if possible, the Good Roads Convention at Grand Forks. To the question, "Where does this road go?" we sometimes smile and say, "It has always been there and probably will not go anywhere soon;" but if the road could have its way, it would get up and leave the community that so abused it by neglect or "malpractice."

Our readers will appreciate the answer of a little girl at the recent Final Examinations to the question, "What is a democracy?" "A democracy is government where you pay the most for what you buy and get the least for what you sell." No doubt every farmer in the state of North Dakota would have given her a perfect mark.

We should not forget the wonderful mineral resources of North Dakota. During the past year the tonnage of lignite coal mined was fourteen times greater than it was in 1911, according to the report of the state engineer. Fortunately there is little risk to human life in mining lignite. At the present time there are over 1700 engaged in the lignite enterprise. Watch this industry.

It seems almost incomprehensible that 40,000 bushels could be marketed in one day at one town in the state, but such is the record at Williston. It is said that so many teams were in town that the streets were well nigh impassable. There is an immense farming territory tributary to Williston, the only other town in the state that approaches it being Beach, in Golden Valley County.

Every one who is interested in dairying, (and who should not be?) ought to write his congressman to support the Haugen Bill soon to be reported to the House. For the first time in years the farmer is getting a fair price for his butter, and it is unfair that he should have brought in competition with his honest product an imitation worth a fraction of the value of the butter. Let every package of oleomargarine be properly labeled.

The parcels post law is about to go into effect. The farmers of the country have the satisfaction of knowing that the law never would have been enacted if it had not made special provisions for the merchants and farmers on the same rural route. It will be some time before the people will appreciate its advantages. Consult your nearest postmaster, then make use of the mails instead of spending

from a half day to a whole day doing an errand in town. Patronize your home merchant and build up a trade in eggs, butter and other products of the farm. Absolutely fresh eggs are now a possibility in hundreds of cities, towns and villages in North Dakota. Care should be taken that the sender's address is on the package.

North Dakota has been seriously handicapped regarding her valuation, which has been assessed at between 15% and 20% of the actual value. Investors, who looked only at the unusually high rate, which in some instances has been over 70 mills, ought not to be blamed for steering clear of North Dakota investments. When we consider that the recent report of the Tax Commission shows the average appraised value of farm lands on which a loan from the school funds was desired to be \$27.30, while the average assessed value was but \$4.26, no one will imagine for a moment that the state is "tax ridden." Instead of being humiliated on account of a credited valuation of about \$300,000,000, North Dakota should be proud of the fact that she has an assessable valuation of nearly \$2,000,000,000. We commend most heartily the efforts of the Commission and bespeak for the state material benefit as a result.

We wish to call especial attention to the Tri-State Grain and Stock Convention, which is to be held at Fargo from January 14 to 17 inclusive. Among the things to be discussed are Country Life, System of Farm Credits, Farm Libraries and Elementary Agriculture, Centralization of the Grain Movement, The Farmer and His Family in the Grange, Distribution of Farm Crops, Dairy Progress in North Dakota, Planting of Wind Breaks, Livestock on the Farm, Our Greatest Educational Need, Why Tree Planters Fail, Value of the Cow and Poultry in Bad Years, Relation of Farming Methods to the Prices of Land, Education of the American Girl, Four Insects Injuring Grain in the State, What the Agricultural Graduate is Doing, Root and Seed Diseases of Cereal Grains, Rotation of Capital, Labor, and Land. Federal Government Should Aid State Government, Relation of the Agricultural Paper to the Importance of Farm Management, Marketing and the Price of Farm Products, North Dakota and Her Future, The Capitalization of Agriculture, Seven Years on the North Dakota Demonstration Farms, What the Department of Chemistry is Doing for North Dakota Farmers, Trees and Shrubs of the Northwest. The meetings for the most part will be held in the Grand Theatre. From the subjects to be discussed we are of the opinion that the sessions will be fully equal to those of any preceding year and every farmer and farmer's wife should make it a point to attend.

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Ask Your Grocer for a Trial Package

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Elementary Agriculture

Plant Diseases

McNeal C. James

In order to grow crops the farmer not only must supply all the things necessary for growing plants, but he must also make war upon the things which are injurious to plant growth, such as weeds, plant diseases and injurious insects.

Plant diseases are especially injurious in this state. It has been proven that when wheat or flax is grown on a piece of ground several years in succession, the crops give smaller and smaller yields. In fact, if flax follows flax, there is often almost a complete crop failure. These poor crops are largely caused by plant diseases, such as smuts, rusts, and in the case of flax, with the wilt.

Some of the plant diseases attack the roots of the plant, while some affect the stem or leaves. Loose or stinking smut causes much loss in wheat. Scientists have been a long time discovering methods of destroying these diseases; but before they could find out how to destroy them, it was necessary to learn how these diseases attack the plant. Professor Bolley, of our own State Experiment Station, at Fargo, has done a great deal in the way of finding out facts about these diseases. Each disease has a little different way of growing and destroying the useful plants.

Did you ever find heads of wheat which were black, and which gave off black dust when shaken? These dust particles were probably spores of stinking smut. These spores are the seeds of the smut plant, just as the grains of wheat are the seeds of the wheat plant.

When the grain is cut and threshed these spores are shaken out and stored with the grain. When the wheat is sown in the spring these spores which have been sticking to the wheat kernel are also planted. When the wheat begins to germinate these spores begin to grow also, as they need the same kind of weather conditions to grow that wheat needs. These spores send out little thread-like branches. These then grow others which enter the small wheat plant while it is quite young. The smut then grows along with and on the inside of the wheat plant until about the time the wheat blossoms. It then develops into spores in a new wheat kernel in place of the kernel of wheat developing. Now, unless the spores are upon the wheat kernel, or very close to it, when the wheat is planted, they will not be able to get to the young plant, and will do no harm; nor will they do harm unless they attack the wheat plant within a few days after the wheat kernel germinates. Because of these two facts the spores left in the ground

the year before do little harm. It is the ones which are attached to the wheat kernels when in the bin which do the damage; hence, the farmer can destroy stinking smut by treating the wheat with a fluid which destroys these spores, namely, formaldehyde.

Loose smut of wheat remains inside the wheat kernel, so that the formaldehyde treatment will not prevent this disease. The smut spores fall upon the blossoms of the wheat and grow in the wheat kernel little threads. These then remain inactive until the wheat is planted the next spring, when it begins to grow and develop in the wheat plant until about blossoming time for the wheat, when spores are formed much as in stinking smut. These spores are then blown to other blossoms of the wheat and infect them in turn to go thru the same thing again. This disease is held in check by the hot water treatment.

If you will examine corn fodder you will find large bunches of black material which gives off much dust when shaken. This is a disease called Corn Smut. The spores of this disease remain out in the field all winter. In the spring they are blown about and lodge upon young corn plants. Under proper conditions they grow upon and into the stocks and cause injury. The only way to check this disease is to plant corn in different fields each year and gather up and burn all smut balls that can be found.

There are many other diseases, like rusts and flax wilt, which do much damage in our state, but space will not allow a further study of them.

References

North Dakota Bulletin No. 87.

Many other publications on plant diseases from the Agricultural College.

Dairying

When a new section of country is first settled the farmers usually grow a certain crop almost to the exclusion of other crops. This one crop is the one which will bring the most ready money and which requires the least work in the growing. In the South this crop was cotton, in the Central West, corn, and in the Northwest, wheat. This practice is kept up until the one crop system begins to be unsatisfactory because of low yields. It is then that the farmer begins to shift about for other crops to grow along with the money crop, and also begins to give some attention to the raising of livestock.

Wheat has been very much grown in our

state in the past and must be in the future. But we must begin to practice a more diversified system of farming, that is, to grow several crops in place of one or two. It is only in this way that we may hope to grow profitable crops of wheat for an indefinite period of time.

Corn, clover, alfalfa, brome grass and timothy will probably be the crops which will receive more attention in the near future than they have in the past. If these crops are grown, more livestock must be fed to make use of the feed. For this reason dairying should receive more attention than it has in this state.

Dairying will not only enable us to carry on a better method of crop rotation, but it will give work on the farm more months of the year, thus giving a better division of labor. This will mean that the farmer can employ his hired help for the year and thereby get much more desirable labor on the farm.

Growing corn, clover and alfalfa and feeding them will enable the farmer to put much manure back on the land, which will tend to keep up the plant food in the soil. It will also make a more safe system of farming, as the farmer will not then depend on one crop alone. When the farmer depends upon one crop a failure of this crop means a failure for the year. Not so with a more diversified system.

If a man wishes to go into dairy work he should procure a good full blooded male animal of one of the dairy breeds, and if possible, a few full blooded cows. In a few years' time he can produce heifers giving milk, which are half bloods of the breed of the sire. The next cross will produce three-quarter bloods. By this method the farmer can improve his herd of common cows in a few years to the point where the herd will give good returns. If a farmer wishes to produce butter, the Jersey, Guernsey or Ayrshire breeds should be purchased. If milk is wanted, the Holstein Fresian is the one desired. Any one of these breeds is good; some are strong along certain lines, others in certain different qualities.

After one has procured the cows he must next give attention to the proper feed and care, for no breed of cattle will give profits if they do not receive the proper rations and care.

A dairy cow must be fed a ration which will supply her body with those things needed to keep it in repair; besides, she must have food in the right amount and proportion, out of which to make milk. The food principles found in the milk must be supplied in the feed. In most instances, foods high in protein are lacking in the ration of a cow in this state. Clover, alfalfa and field peas are roughages high in this important food principle. Bran, shorts and oil meal are some of the concentrates which contain it in large proportions. Brome grass, timothy, wheat and

oats straw are roughages deficient in protein.

Succulent foods are also quite necessary to a good milk flow. These can be supplied by cabbage, turnips, mangles, sugar beets and silage. Grass is an important feed in the summer. The dairy cow must also have a good supply of clean water. In the winter this water should be either pumped from the well immediately or be warmed by a tank heater. Ice water is a very poor drink for a dairy cow since it requires so much energy from the food to warm this water.

Beef cattle being fed much grain, especially if this grain is corn, need not be housed in a very warm place. In fact, they are more comfortable if housed in a cool barn, because the grain fed furnishes much heat thru the process of digestion. But a dairy cow must be well housed for she is very sensitive to cold. This does not mean that she cannot be allowed to run out of doors during the day time in cold weather, especially if the wind is not too strong. Neither does it mean that she does not need fresh air while in the barn. As far as the writer's observations have gone, the North Dakota farmer is very careless in housing his animals, so that they can procure fresh air. Dairy cows, as well as human beings, must have fresh air. Better that they be a little too cold than that they be shut up in a barn with poor air.

Another thing which is very important in dairying is that of clean milk. Probably no food produced on the farm is more carelessly handled than that of milk. To insure a clean supply of milk the following things are necessary: Healthy Cows, Good Feed; A Clean, Light Barn, with smooth walls and ceiling; Clean Cows, Clean, healthy milkers, small topped, hooded milk pails; Clean milk utensils.

Milk is used for human food. Because of this fact there are two very important reasons why milk should be clean. In the first place, the more dirt in the milk the more quickly it will sour. This is because the more dirt the more bacteria, or germs, there are, and all souring of milk is caused by bacteria. Then these bacteria which are always found in the dirt are often very harmful in that they cause diseases. Typhoid Fever, Tuberculosis, Dysentery and Scarlet Fever, and many other dreadful diseases are often carried into the system by filthy milk.

In order to keep a cow clean she should be well bedded each night, and the stable cleaned every day. The cow should be well curried and brushed; especially should the udder and flanks be brushed and gone over with a damp cloth before milking. The milker should not do all the other chores on the farm and then sit down to milk without first washing his hands. He should keep an apron or a clean pair of overalls which he wears when he milks. These clothes should be kept

clean. The writer has often seen men milk and allow the milk to drip from the hand into the pail; yes, he has seen men literally milk in the palm of the hand and allow the milk to run off into the pail. These practices are positively filthy and should not be allowed. Milking should be done with a cow's udder and teats dry.

Milk pails should never be used to feed from, a practice the writer has also seen. In fact, they should not be used for anything else but milking. They should be scalded out with hot water and left in the sun as much as possible. These pails should be small at the top and partially covered with a hood, for it has been found that these pails shed out a very great deal of dirt which otherwise would find its way into the milk.

Some will think these precautions will take too much time; that they are not practicable on the average farm. The writer knows that they are practicable, because he himself has practiced them for years on the average farm, and has seen them carried out by other farmers as well. Surely we can afford to take a little care when a question of clean, healthy milk is at stake.

PLANT FOOD

W. C. Palmer, N. D. A. C.

The plant food removed in farm products is represented in the following table:

\$100 worth of	Worth of plant food
Hay.....	\$85.
Wheat.....	30.
Corn.....	30.
Beef.....	5.

Cream.....	1.
Butter.....	.10

In other words in selling \$100 worth of wheat \$30 worth of plant food is sold so the net return is \$70, while in selling \$100 worth of cream the net return is \$99. In selling grain and hay the fertility that makes the farm productive is sold too. In selling dairy products the fertility is returned to the land in the manure. Land that has been manured will produce considerably more than unmanured land. Growing crops as corn, grass, or alfalfa to feed the dairy cow reduces weeds and in other ways prepares the land for producing a good crop of grain.

Dairying or stock of some kind is an important part in profitable farming.

For Sale

Fine Farm in the Best Watered Valley in Montana.

Forty acres under plow. A never-dry river runs across corner. County Road runs diagonally thru land. Irrigation ditch north of land, if you care to use it. Five miles to railroad. One of the finest apple orchards in world near mouth of valley. 400 acres plowed. Fine for grain, flax, etc. 225 acres grazing land. May divide if desirable.

NO CROP FAILURES

Inquire of

R. M. SCHMERLER

17 South Sixth Street, Mpls. Minn.



Children Must Have Good Light for Studying

A poor light strains the eyes, and the injurious effects may last for life. An oil lamp is best. The light from the Rayo Lamp is soft and mellow. You can read or work under it for hours without hurting your eyes.

The RAYO is constructed scientifically. It is the best lamp made—yet inexpensive and economical.

The **Rayo** Lamp, made of solid brass—nickel plated. Lighted without removing chimney or shade. Easy to clean and rewick. Made in various styles and for all purposes.

Dealers Everywhere

STANDARD OIL COMPANY

(An Indiana Corporation)

Livestock Department

FARM AND STOCK NOTES

N. J. Shepherd

Too heavy salting destroys the flavor of good butter.

As a rule the cheapest ration for stock is that grown on the farm.

Any kind of milk is excellent to mix with the soft food of poultry.

Good hogs have good pedigrees but do not make pedigree superior to the hog.

Keeping stock helps materially to market the bulky products of the farm advantageously.

Fruit of fine appearance sells better than fruit of extra quality but not so showy.

The food of support is more than the food of gain under the most favorable circumstances.

What is left after all expenses are paid is profit, whether it be much or little.

He who produces an inferior commodity will always work cheaply no matter what line he may follow.

Teach the colts to walk well and you will lay the foundation for all the faster gaits.

Any harsh treatment that excites the cow lessens the quantity and injures the quality of her yield.

As young pigs grow their rations should be gradually increased as quick growth is necessary for the best profit.

The quality of the dam is as important as that of the sire in the production of good horses.

The milking qualities of a cow depend more upon those of her sire's mother than upon those of her own.

Economical feeding is that by which we obtain in return the greatest amount of money for a given investment of feed.

The cost of gain is not always a reliable criterion of profit. A cheap gain may be so slow as to be unprofitable.

Butter can be more thoroly washed free from buttermilk while in the granular condition than after it is gathered or pressed into a roll.

A man can not exercise good judgment unless he has good knowledge, and he can

not secure good knowledge unless he makes a special effort to that end.

The successful farmer has two things to keep in mind—the amount and the quality of his products that they may realize him the most cash in market.

A small fat sheep will always bring better prices than a large poor one; but if the larger sheep is also made fat it will command much the better price.

The largest animal is not always the most profitable. There is a point in the feeding at which the food of support begins to bear an undue ratio to the feed of gain.

There are more or less feeding materials on every farm that have little or no commercial value in their crude state, but can be sold at a profit if reduced to marketable products thru the medium of good stock.

Overchurning, that is, churning until the butter forms in large lumps, increases the moisture on account of the fact that a considerable amount of buttermilk is incorporated. This butter milk is usually detrimental to the keeping quality of the butter and should not by any means be churned into the butter.

TO PROMOTE DAIRYING

W. C. Palmer

The meeting of the dairy officials of the Northwestern states held at Bozeman, Montana on July 18th and 19th marks a new move in Northwestern agriculture. This meeting included all of the Northwestern states and as far east as Minne-

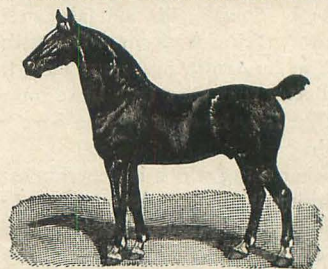
sota and Nebraska. North Dakota was represented by G. L. Martin, Professor of Dairying at the Agricultural College and R. F. Flint, State Dairy Commissioner. Professor Martin gave the response to the Address of Welcome. Professor Martin also served on the Resolutions Committee and when the officers were elected he was made secretary-treasurer as a permanent organization was formed.

The other officers are J. G. Winkler, Dairy Commissioner of Minnesota, president and Jas. H. Wallis, Boise, Idaho vice-president.

An invitation was extended by the Commercial Club of Bismarck to hold the next meeting there. The convention decided to accept this invitation so that next June some time the annual meeting of the Northwestern State Dairy officials will be held at the Capitol of North Dakota.

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

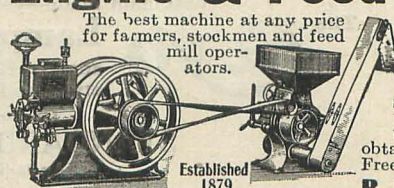
As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is Warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address The Lawrence-Williams Co., Cleveland, O.

W. F. JACOBS Livestock Auctioneer

Thoroly Posted on Pedigress

Terms Reasonable LISBON, N. D. Write for dates

Engine & Feed Grinding Outfit



THE HOWELL ROLLER FEED MILLS have been wonderfully successful everywhere. They wear a life time, grind twice as fast with the same power as the best burr or stone mill made. Good money in custom grinding. Grinds Graham and Rye Flour as well as feed. Engine is of latest and most up-to-date design. Runs at proper speed to obtain best grinding results. Simple and Durable. Free Catalog D3 tells everything.

R. R. HOWELL & CO., Minneapolis, Minn.

The keynote of this convention was to encourage the producer so that he could receive his full share of the returns; to do this by encouraging legislation against discrimination in prices and by securing increased means for giving instruction to farmers in dairying.

The other states were represented as follows: Montana: W. R. Allen, Governor; R. W. Clarke, Professor of Dairying, Agricultural College; J. G. Howe, Stevensville; W. C. Whaley, Townsend; John Uhl, Clyde Park; W. G. George, Billings; F. B. Linfield, Bozeman and E. B. Martin, Bozeman. Utah by Willard Hanson, Dairy Commissioner; Idaho by Jas. F. Wallis, Boise.

The representatives from Nebraska and South Dakota could not be present at the meeting.

Among the resolutions passed the following is of interest:

"Whereas, the upbuilding of any agricultural people is based upon a system of diversified farming with increased productiveness of the soil giving the largest financial returns to the commonwealth, and whereas, no leading agricultural sections have ever attained prominence except where dairying is recognized as the fundamental basis of their farming operations; therefore, be it resolved that this important industry be encouraged thru constructive legislation, thru the press and by those who have the best interests of the community at heart.

Be it further resolved, that more adequate provisions and facilities be provided for dairy instruction in schools, colleges and thru field assistants."

SILAGE

Thirty pounds of silage a day for a 1,000-pound dairy cow is a full feed where the silage is to be fed for a long period. Some cows, if given all they want, will eat from 50 to 75 pounds each, daily. Over feeding of silage is likely to produce tainted milk and milk that does not keep well and injures the health of the cow.

Silage for Growing Cattle

Growing cattle are usually taken off pasture in the fall in a fat condition. They are given a lot of dry fodder thru the winter and weigh less in the spring than they did the fall before. The feed has cost money, the cattle have lost weight, and the profit from the winter's operation is less than nothing. The labor and feed have resulted in a loss of weight in the stock, and part of the profits made from the summer pasture have been thrown away.

By adding silage to the usual winter ration of growing cattle, the animals will show an increase in weight in the spring over that of the fall, and will continue to gain from the day they go on pasture. Usually, silage fed each winter will save a

year's time and feeding in getting beef stock matured for the markets.

Silage for Sheep

Many shepherds report as good results from feeding silage to sheep as are reported by dairymen and beef cattle feeders. Silage is well adapted for fattening lambs and for a part ration for wintering breeding sheep.

Silage for Other Animals

Most horsemen have had unfavorable results from feeding silage to horses. A few report it a satisfactory feed. Moderate quantities fed occasionally give variety to the feed and are an advantage. It cannot be used as a main feed.

Silage is of not much value to hogs, except when given in small feeds for a variety and an appetizer. Hogs show less liking for silage than any other class of farm animals.

Silage is a good winter egg-producing

NORTH DAKOTA COOK BOOK

CONTAINING 1000 CHOICE RECIPES
BY NORTH DAKOTA WOMEN
Price 50 CENTS, Postpaid
N. D. FARMER - Lisbon, N. D.

ST. PAUL UNION STOCKYARDS CO., SOUTH ST. PAUL, MINN. Comparison of Receipts and Shipments of Live Stock for November, 1912

	Receipts					
	Railroads	Cattle	Calves	Hogs	Sheep	Horses
C. R. I. & P.....	329	149	2020	637	19	46
C. G. W.....	862	130	7266	1147	18	141
C. M. & St. P.	3819	659	16048	10321	15	427
M. & St. L.....	1214	325	10459	938	.....	208
C., St. P., M. & O..	2840	556	22481	4972	25	465
C. B. & Q.....	329	42	2866	552	.....	56
M. St. P. & S. S. M.	6917	1848	13453	4707	2	462
Gt. Nor.....	14485	3271	20215	82163	1	1312
Nor. Pac.....	9595	1552	8576	46240	2	668
St. P. B. & T.....	.....	.....	.....	.....	.....	.....
Driven In.....	886	101	939	176	12	.....
Total.....	41276	8627	104323	151853	94	3785
Increase over 1911	.....	749	.....	19701	.....	.....
Decrease.....	3882	.....	10344	.....	152	115
Jan. 1 to date.....	365978	123741	883968	582473	5090	29978
Increase over 1911	.....	2642	75449	.....	.....	.....
Decrease.....	29146	.....	.....	101937	2429	10
Average Wts.....	791	233	212	84	.....	.....
	Shipments					
	Railroads	Cattle	Calves	Hogs	Sheep	Horses
C. R. I. & P.....	3029	118	.....	2265	.....	101
C. G. W.....	3482	78	583	17523	4	192
C. M. & St. P.	7739	416	12733	26600	13	504
M. & St. L.....	1030	6	.....	1128	3	44
C., St. P., M. & O..	5853	642	9982	18614	20	346
C. B. & Q.....	4339	43	.....	37276	.....	316
M. St. P. & S. S. M.	470	15	.....	1372	12	27
Gt. Nor.....	1599	108	.....	2268	14	65
Nor. Pac.....	909	15	.....	1048	16	35
St. P. B. & T.....	.....	.....	.....	.....	.....	.....
Driven Out.....	515	212	95	798	2	.....
Total.....	28965	1653	23393	108892	84	1630
Increase.....	.....	.....	.....	.....	.....	.....
Decrease.....	2327	96	3246	6668	171	147
Jan. 1 to date.....	251543	21731	208716	407270	4920	12240
Increase.....	.....	.....	.....	.....	.....	.....
Decrease.....	21591	13132	9638	122154	2549	1536

feed. The hens delight to pick out the grain and the leaves. They do not eat the stalks where feed is abundant.

MAKE BIG MONEY MAILING

Circulars for firms! A book named "Key to the Circular Mailing Business" and 50 circulars to mail on 20% commission, sent for dime.

Carl Henrikson

Tioga - - - Box D. F., North Dakota

Are you boosting the North Dakota Farmer? One year, 50 cents; three years, \$1.00.



Purebred Registered
HOLSTEIN CATTLE
The Greatest Dairy Breed
Send for FREE Illustrated Book
Holstein-Friesian Asso., Box 135 Brattleboro, Vt

SHROPSHIRE RAMS

I have forty-five thoroughbred Shropshire rams for sale. Coming two and three years old. Prices right. Call and see what I have to offer or write.

FORRESTER H. SMITH

Amenia - - - North Dakota

WE WILL GIVE YOU THIS RIFLE

Genuine Hamilton Take-down Hunting Rifle, 22 cal., long or short. Kills game at 100 yards. Automatic shell extractor. Set of targets. Given for selling 30 of our latest Jewelry Novelties at 10 cents each. Easy selling. We trust you. Send at once. Extra present. THE WHITE CO., Box D, Melrose Highlands, Mass.

CLASSIFIED ADS.

One Cent a Word

Small advertisements will be classified under appropriate headings at the low price of one cent a word for each insertion. Cash must accompany all orders. Each initial or number must count as one word. TRY IT HERE.

LIVE STOCK

HORSES

FOR SALE

Percheron, Belgian and Shire horses
J. W. & F. T. PETERSON, Litchfield, Minn.

CATTLE

North Branch Stock Farm. High class Short-horns. Herd, bull. Supreme Judge 177722—pure Scotch. John Donnelly, Grafton, N. D.

FOR SALE

GALLOWAY CATTLE
J. W. & F. T. PETERSON, Litchfield, Minn.

SWINE

POLAND CHINA PIGS, also Shropshire sheep Seed grain GEO. N. SMITH, Amenia, N. D.

MISCELLANEOUS

Envilla Stock Farm, Cogswell N. D. will quote you special prices on Angus Cattle, Shetland Ponies, Duroc Jersey Hogs, Wolfand Fox Hounds, Pure Bred Poultry, Pet Stock. Write them.

FOR SALE: Registered Jerseys. Bull calves and one mature Bull at reasonable prices. W. G. Weeks, Backoo, N. Dak.

RED-POLLED AND GALLOWAYS

Shropshire Bucks

J. S. BIXBY, - - LISBON, N. D.

FOR SALE. Creamery in first class condition at a bargain at Crystal, N. D. For further information write to
J. S. GESTSON, Sec. CRYSTAL, N. D.

FARMS WANTED

TO FARM OWNERS: Our plan puts you into communication with buyers at low cost; write for particulars.

Co-operative Advertising Company
Fergus Falls, Minn.

A BARGAIN FARM. 200 acres, 9 miles from Eldon Miller Co., Mo., a Division point in Rock Island, R. R. 125 acres in cultivation; 100 in bottom, no buildings; good orchard, fine water, well fenced; 30 acres meadow \$20 per acre. Other good farms for sale. Goodrich Realty Co., Eldon, Mo.

Oxford Down RAMS

A Few Choice Ones
FOR SALE

Willobank Farm

EASTGATE BROS.

LARIMORE, N. D.

CREAMELLE VALE'S RECORD

Supreme among dairy cows, Creamelle developed and owned by the Fred F. Field Holstein Co., Dutchland Farms, Brockton, Mass., is the world's milk champion of all breeds, having overshadowed all previous yearly records by her remarkable production of 29,653.4 pounds of milk. This record is further strengthened by one of the largest butter productions of the breed,—a result which has been achieved thru the blood strains of producing families.

Under careful guidance, she has completed her record with an ease which has only served to develop her so that greater work may be expected from her in the future. That Creamelle Vale justifies her production is shown in the work of her dam,—DeKol Creamelle's 26,123 pounds of milk marked a world's record, when made, in the annals of the breed which has been readily reproduced in the new world's champion, with a margin of over 3500 pounds.

As "like produces like," a feature of additional interest is the work of Dutchland Colantha Vale, daughter of Creamelle Vale and Colantha Johanna Lad; she already stands first among junior two-year-olds, by her record of 89.6 pounds, her

best day, 603.4 pounds in 7 days, and 2438 pounds in 30 days, and is now in semi-official yearly work having produced in the first six months and two days, 12,650 pound of milk. Here is another worthy test of the producing qualities which the great sires, Pietertje Hengerveld's Count DeKol and Colantha Johanna Lad, have been able to transmit.

Feeding Experiments with Cows

On replacing oil cakes by wet grains, the basal rations consisting of hay, straw, rutabagas, cotton-seed meal, peanut cakes, or soy-bean cakes, it was found that 10 pounds of wet grains was equivalent to 2 pounds of the high-protein cakes. Neither the milk production, the chemical composition of the milk, nor the condition of the cows was affected by the introduction of the wet grains into the feed ration in this proportion. When good, fresh, soy-bean cakes were fed, no deleterious influence of feeding them was traceable in the flavor or taste of the butter, even when these were fed excessively. In the latter case they produced butter of a hard consistency, so that the winter grain feed of the cows should not, therefore, be made up too heavily of soy-bean cakes.

ST. PAUL UNION STOCKYARDS CO., SOUTH ST. PAUL, MINN. Comparison of the Origin and Disposition of Live Stock for November, 1912

Origin of Live Stock Received

States	Cattle	Calves	Hogs	Sheep	Horses	Total Cars
Minnesota.....	21339	6606	74046	21462	23	1988
Wisconsin.....	3703	859	19179	4697	3	415
Iowa.....	61	3	363	225	55	14
Far South.....						
So. Dakota.....	1522	96	3777	1988	13	127
No. Dakota.....	10341	937	6838	12911		564
Montana.....	4277	126	120	110323		675
Far West.....						
Manitoba & N. W. T.....						
Far East.....						
Returned.....	33			247		2
Totals.....	41276	8627	104323	151853	94	3785

Disposition of Live Stock

So. St. Paul P'k'rs.	14363	5302	83635	30294		
City & State Butch	884	111	256	520		37
Outside Packers...	891	379	22541	7379		261
Minnesota.....	5275	367	103	14810	56	235
Wisconsin.....	1068	13		754	15	40
Iowa.....	7277	122	493	7077		250
Nebraska.....	593	1				17
Kansas & Missouri	121					3
So. Dakota.....	1860	332		3664		74
No. Dakota.....	511	22		631	10	20
Montana & West..	848	42				21
Far South.....						
Manitoba & N. W. T.....				695	3	4
Mich. & E. Can....	34					1
Chicago.....	7261	229		72730		585
Ills. (Ex. Chicago)	2129	35		125		74
Eastern Points....	180			260		6
Returned.....	33			247		2
Totals.....	28965	1653	23393	108892	84	1630

Poultry Department

AIMLESS WORK

Mrs. B. F. Wilcoxon, North Platte, Neb.

One of the greatest mistakes in poultry raising is aimless, indefinite work. We must have a clear and distinct idea of just what we want to accomplish before we begin. Do not be drawn from one thing to another or your work will not count for much.

For example a person starts out to be a successful poultryman. He becomes enthusiastic over one breed, but after handling them a short time he is led to believe that he does not get the returns that he should and he changes to another. Here in all probability, history repeats itself and his time is wasted. If he had continued with the first breed and learning how best to handle his stock would soon have brought results. Many a person lets go just before they reach the goal. Their work is aimless, they have no definite idea of how they are going to accomplish any thing. They simply do not know.

Many are indifferent as to results. It is not enough to know what the flock is doing for the year. It is not enough to know it costs to feed the flock. Of course, this information is worth something. It is possible that there are other breeds that might be handled in a way to make them far more valuable. Aimless work is the wrong kind of work. There must be a definite idea of what we are going to accomplish. Poultry work is something that demands attention. Fixed plans are necessary for the best and most encouraging results. Our flocks must be handled in a way that will make it possible to accomplish the most. Our work must be not only well planned but followed with system. Let us get down to a sane basis. The right kind of a hen, rightly kept should yield a net profit of at least \$10 or more a year. Hence the amount of cash income will simply be in proportion to the number of hens kept, whether the number be 100 or 1000. Now if that is not easy money, what is? Ruins of big poultry plants dot the country here and there. Of course, they are not all failures. Eighty per cent of the marketed eggs come from small farm flocks where only a few hens are kept. On the average farm it is not a hard matter to sell \$100 worth of eggs and surplus stock from a flock of 100 hens while the family have all the eggs and meat they can use. Many keep hens with a pencil and paper. They add a few ciphers to the hen column and it seldom works out that way in the actual work in the poultry yard. Why just for the reasons that I have just mentioned above. Much depends upon the person in charge of the work. As much depends upon work in the poultry yard as it does in any other legitimate business. With decent care the hen in proportion to the capital invested is the surest and best profit bringer on the farm. Many in the cities make a cry against the high cost of living. Why not try a flock of hens and see how they will help out.

Nature is calling, the drift of humanity is back to the land. Young men and women leave the farm and drift to the city in hopes of earning more money and having an easier job. They have been sadly disappointed. Their earnings are only moderate—as it were. They are like a cog in a great machine and often it is a difficult matter to make a living. Many move from the densely populated city to the suburbs and have taken up poultry raising. Many are at the head of a large egg farm and making a big income which represents fifty per cent a year on the investment. Many are doing it. Some have

tried and failed. I have seen many going thru costly and arduous education under the most relentless of school masters—experience.

I knew a man who started on a small scale and was successful. He thought that if he could make a good profit with a small flock he could make larger profits with a large flock. So an expensive equipment was indulged in, which proved a "White elephant." He did not have time to manage personally this large undertaking. He had to hire help which worked to their own interests, so his expensive plant is now idle.

I have often said that if girls on the farm or in cities would spend more time in studying the characteristics of the hen, than in studying "Lady Macbeth" they would be walking on velvet instead of walking the hard pavements, looking for a job that hardly enables them to exist. I wish I could impress upon the minds of all who are anxious to go to the cities to find employment the possibilities of an egg farm. The business of egg farming has scarcely any limits. At the same time, there is a growing demand for roasting chicks and broilers, while with beef—at

Marquis Wheat

The heaviest yielding, earliest and best Milling Hard Wheat in existence.

WON

First Prize at the New York Land Show in 1911
and
First Prize (\$2500.00) at the Dry Farming Congress at Lethbridge in 1912

Our Wheat is grown on our own farms from seed from hand picked seed plots

**Guaranteed 99% Pure
Weighs 65 Lbs. per Bu.**

Write for price and sample.

**Angus Mackay Farm Seed
Co.**

DRAWER "O"

Indian Head, Sask., Can.



Answer These 3 Questions First

before you buy a rod of fence.

KIND OF WIRE? You want a wire that is **springy**, but not **brittle**. We make the wire for Square Deal Fence in our own wire mills right next to our fence factory. We make it hard enough to be **springy**, but not **brittle**—then we galvanize it heavily and evenly.

SIZE OF WIRE? Be careful about size and weight of the stay and strand wires. Compare

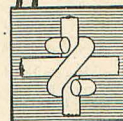
SQUARE DEAL FENCE

with any other, strand for strand, stay for stay, and see why fencing we made 22 years ago is still giving good service.

HOW IS IT WOVEN? See the **Square Deal Lock**—the knot with a grip that will not slip. See the way strand wires that spring Square Deal fencing back into place after sudden heavy strains and keep it tight and trim the whole year round. See the one-piece stay wires that prevent sagging, bagging and buckling to let the pigs under—requires fewer posts, saving money, time and labor.

Get Square Deal Prices Before You Buy

We'll send you our latest fence catalog, price list, local dealer's name and a high grade, four-section, 2 ft. folding rule, all **FREE**. A postal will do.



Keystone Steel & Wire Co.
1006 Industrial Street (6)
PEORIA - - ILLINOIS

S. C. Buff Orpingtons, S. C. Black Orpingtons,
M. Pekin Ducks and Indian Runner Ducks.
Maude I. Matthews - Larimore, N. D.

Eggs for Hatching

Orpingtons.....White.....Buff
Rock.....White.....Buff
Wyandottes.....White.....Buff
Wyandottes.....Silver.....Golden
Also a few cockerels.

Write your wants. Book order early.
O. A. Barton, Valley City, N. D.

R C R I REDS Now is the time to buy breeding stock for next year.

I can sell you last year's hen and cock or this year's pullets and cockerels. Prices, \$1.00 to \$2.50 each. You must order early. I have 250 to pick from.
K. H. THOMTE - LISBON, N. D.

EGGS FOR HATCHING from pure bred Buff Orpingtons. \$1.50 for 15; \$2.50 for 30.
F. M. PEZALLA, - CAYUGA, N. D.

BARRED ROCK

Choice Stock and Fair Treatment.

ROBERT B. REED

Box 2. Amenia, N. D.

BUFF WYANDOTTE EGGS for hatching. Fowls for sale. Also twelve breeds of Fancy Pigeons. M. B. NOBLE, Hillsboro, N. Dak.

BARRED ROCKS

Bred to Lay and Win

Won all first at Fargo, N. D. State Show, 1906, 1907, 1908, 1909 and 1911. Stock at reasonable prices

PETERSON BROS. Harwood, N. D.

HAUSMANN POULTRY FARM

Breeders of W. Wyandottes and S. C. W. Leghorns
Hillsboro, - North Dakota

E. A. TOW

Breeder of

White Wyandotte Chickens, Toulouse Geese, Burpion Red Turkeys, Pearl and White Guinea. Eggs in season. Write for prices. Lisbon, N. D.

BRED FOR EGGS & MEAT

Bellevue Strains of White and Columbian Wyandottes, S. C. White Leghorns, and Light Brahmas. Stock for sale. Over 30 years in business.

MICHAEL L. BOYER, Box 17

Hammonth, Atlantic Co. New Jersey

EGGS FOR HATCHING. White Plymouth Rocks (Fishels Strain) \$5 per 15. I have the Best in the Northwest. No exceptions. Indian Runner Ducks from Choice High Bred Stock, \$2.50 per 11. Canadian Wild Geese, \$1 per egg.
C. H. MCGEE
Oriska, N. Dak.

WHITE WYANDOTTES. If you want eggs from an early maturing, heavy laying, prize winning strain of White Wyandottes write me. I am developing a special laying strain by use of the trap nest. Prices reasonable. Write
M. C. JAMES, Valley City, N. D.

MAKE YOUR HENS LAY MORE EGGS

I have a method that will make your hens lay every day; it never fails. Write for it. 2c stamp.
MRS. B. F. WILCOXON,
North Platte, Neb., Dept. 8

FOR SALE. M. B. Turkey Toms, raised from our Diploma Stock, \$5.00 and up; also Eggs from 26 varieties poultry. Catalog free.
L. GULDEN, Osakis, Minn.

Rose Comb Black Minorcas

Eggs for sale, \$2 for 15 eggs.

C. WYSH, CASSELTOWN, N. D.

SINGLE COMB BUFF ORPINGTON EGGS

\$1.00 per 15 or \$5.50 per 100 from my thoroughbred farm range flock. \$2.00 per 15 from my prize winning pen Mrs. D. W. Swanson, New Rockford, N. D.

war-time prices and likely to stay there—any kind of a fowl finds a ready sale. It pays to specialize and undoubtedly the egg trade is the most reliable. I have always had "chicken fever" and the prices eggs were bringing convinced me that there was money in egg farming. Many despise the hen, yet she has come to the rescue of the owner when he or she was hard pressed. There is no reason why a flock of hens should not show a profit of from one to two dollars apiece every season. One hundred or two hundred hens do not require a great amount of attention, and what pays better? Profits are the difference between what eggs sell for and what it costs to produce them. The man who gets the biggest returns does not always make the most money.

Economy in management is very important. The key to success sums up in one word system. Organize your farm thoroly. Have a system by which you may know every day the record of the previous day. The poultry business earns money every day in the year. The poultry man is producing something which is in demand in every place in the Union. No matter how remote from the great markets it may be and the price never falls below the profit-bearing mark. Poultry and eggs can be sold any day anywhere on earth and can be sold for cash. You can buy your feed today and tomorrow the hens will pay for it. Intensive poultry culture is receiving more attention the last few years. It has been talked about for a long time by a few who have tried it.

It is now 9 P. M. and as I write I hear a neighbor, who fires engines all day long, hammering away at his coops getting ready for winter. He has a flock of fifty on part of a lot. An acquaintance of mine, a fancier, succeeded in keeping more than 400 grown fowls on a little less than one-third of an acre, keeping his hens in good health and up to the highest mark in laying. It would seem almost impossible to keep so many hens on such a small lot. Clean houses, light and air are as necessary to the health of poultry as to human beings.

The most marked characteristics of poultrymen is their enthusiasm and pride in their work. On these plants if fowls show signs of not being in normal health the food is changed and ailing birds are killed. I have visited plants where the fowls were kept in flats and the birds were to all appearances perfectly healthy and laying as well as could be wished. A plant of this kind returns more money for the space it occupies than any form of outdoor work and those who live in towns can keep fowls enough to supply the family with poultry and eggs and have both to sell without going to extra expense for land on which to keep them.

I receive many letters from women asking for light on the problem of whether or not to try poultry raising. As an ex-

ample—just one voice "crying in the wilderness"—here is a portion of a letter recently received: "Four years ago I was left a widow with several small children to support. I have a very hard struggle for existence. I am sure that poultry raising would be lighter work than working in the cotton fields, and I feel that poultry raising would be the uplifting of a struggling existence, so will just trust to fate and your good will, and any information that you can give to me will be greatly appreciated." I receive letters daily telling of success or failures or heart-throb experiences.

POINTERS ON MARKETING EGGS

Michael K. Boyer, Hammonth, N. J.

Even tho the egg crop is large, if that crop is not properly marketed there will be only ordinary profit. It is admitted that a good retail trade is the best market, but the farm is not always so situated that this can be obtained.

It is important, then, that a good wholesale custom be secured, and this makes it necessary that the goods be in such a condition that they will be sought after.

An ingenious method to advertise the eggs is to have a rubber stamp made with the wording of the farm on it, something like this:

Guaranteed Fresh
Purebred Poultry Farm
Progress, N. D.

This stamped on each egg would at once attract attention, and if those eggs are found to be true to representation, there would be no trouble to hold that customer.

The question arises: "When does an egg cease to be fresh?"

Investigation has proved that an egg remains in a fresh state for three days. Some farms ship eggs when a day old, to allow two days' time for carriage and for the sale. This is a safe plan. As a rule, however, guaranteed fresh eggs are purchased the day they are placed on sale. Such eggs are for the "fancy, up-town grocery trade" of cities.

What is known as "Prime" eggs in the city market are eggs of which the age is not known—they being from one to three weeks of age in cool weather.

"Fresh case" eggs are a class out of which it may be expected to secure six good eggs, three fair ones, and three of a "demoralized" order, in each dozen.

It seems that the market is always ready for good, bad and indifferent eggs. Of course, it goes without saying, that the stamped eggs are sold first, and at an ad-



55 BREEDS

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vanced figure, as there is a special demand for them.

In nearly all the large cities there are grocers who cater to a fancy trade, and these are only too glad to arrange with some farm having a reputation for furnishing eggs that are strictly fresh.

Eggs should be gathered at least once a day, and even two or three times daily is better. They should be placed in a cool, clean cellar, away from any impure odors, for an egg will absorb any impurity that might be near it.

Eggs should not be marketed that are not regularly found in the nest. Eggs from hidden nests, or picked up in the run, are risks, and should be used at home. Great care must be taken in this particular. All stains and dirt should be wiped with a moist cloth and then allowed to dry. A little vinegar will often remove the most obstinate stain.

The older the egg the less is that sweet rich flavor noticeable.

It is more important to know the work of the individual hen than the average of the flock.

Feeding skim milk has a tendency to whiten the flesh.

Remember "good condition" does not mean overfat.

It must not be forgotten that food flavors the flesh as well as the egg.

Our American breeds fatten very readily, making them ideal market poultry.

The yolk of the egg spoils much quicker than the white.

A French naturalist asserts that the use of pounded garlic with the usual food has been made to completely eradicate the gapes among pheasants in Europe.

The beginner finds many stumbling blocks in the artificial methods, but experience soon shows the trick of how to easily step over them.

Over-feeding of green cut bone is apt to cause leg troubles, diarrhoea, bowel complaints and worms.

There is no foundation for the assertion that the "sweet, rich flavor of the egg belongs to the breed." That condition can only be brought about by the quality of the food.

Those who become discouraged by mistakes are not very progressive. Instead of being stumbling blocks, mistakes are object lessons that arouse one to a sense of closer observation and point out facts. However, the man who makes the same

mistake twice is not a very observing person.

No poultry meat excels, if any equals, a half-grown Guinea, split down the back, broiled and buttered. It is meaty, tender and of splendid flavor.

The first one or two litters of eggs laid by pullets are not so serviceable, so pure or profitable for hatching as is their later product, for the reason that they were first formed at a time when the pullet was growing and the organs not fully developed.

An authority says that if the egg is placed on the side or large end, the heavy yolk will settle to the bottom and come in contact with the shell, which admits the air. If it is placed on the small end, it will always have a layer of white between it and the shell.

Colonel Roessle once said there may not

be any very large fortune to be made in poultry raising, but there is a handsome living for any one who has the love for the pursuit, the ability to raise and care for the stock, and a small capital to start with. These three things must go hand in hand; separately they cannot bring success.

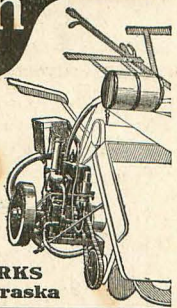
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School and Home

CHRISTMAS WITHOUT CHILDREN

What would Christmas be without the children?

This of late has been my constant thought,
As on tiny hoods and scarfs and mittens
Ceaselessly my willing fingers wrought.

What would Christmas be, again I ask you,
Should you miss that loving, warm embrace,
When a white-robed figure breaks your slumbers,
Shouting, "Merry Christmas" in your face?

Think of Christmas tree without a dolly,
Think of stockings all of No. 10,
Hanging side by side beneath the chimney,
Think you Santa Claus would visit them?

Think what dearth of innocent enjoyment,
Think what barrenness of joy and mirth,
Think what desolation would be ours,
Were the children banished from the earth.

Let us, then, bring smiles to their dear faces,

Let us see their laps with treasures piled,
Let us think of One who, loving others,
Came to earth and dwelt a little child.
—Isabelle H. Fitz.

THE FARMER'S INCOME

Warren H. Wilson

Previous to President Taft's letter to the Governors about Land and Agricultural Credit there had been no conspicuous attention of the United States or of the State governments to the most important issue with the farmer. The Departments of Agriculture had specialists on everything except what the farmer really wanted to know; namely, whether he was making an income. There are specialists on the horse and a troop of experts on the cow, a regiment of wise men on the hog and as to the parasites that threaten the country, each one of them is attended with prime ministers and ambassadors of learning who come out from State and National capitols and talk on their own specialty and go back again to their offices and laboratories. But the farmer wants to know about his income. The census does not tell him and until within the year the agricultural scholars did not study this

problem with care. Yet it is the main issue with the individual farmer. He lives in the country not for his fondness for hogs or cattle, but in order to get an income.

The studies made by Cornell University, by the Department Investigators from Washington and by the Presbyterian Department of Church and Country Life are only in the beginnings, but the remarkable thing is that they concur in certain general findings about the farmer's income. Taking fairly prosperous regions into account they show that about one-third of the farmers do pretty well. These could pay themselves a wage for their

labor on the farm varying from eight hundred to two thousand dollars for the

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Shrewd and careful builders grasp every chance to save on their material because it's the one SURE way to save on building. It means money ahead at the start. It's simply a matter of keeping the middlemen's commissions for YOURSELF by buying, over their heads, direct from the man who owns the resources.

Every prospective builder should write for our big price list and learn how to CUT THE COST OF MATERIAL 25 to 50%.

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year. Then there are some average farmers who could pay themselves a wage of about three hundred dollars a year.

But the trouble in the country community is that general prosperity goes no faster than the poorest third of the population. These men make nothing at all. Indeed, in Pike County, Missouri, a survey of farmers' incomes showed that three out of seven after working hard all the year had less than nothing to pay themselves for their labor. If they had sold their farms at the beginning of the year and put the money at five per cent interest, they would have been richer in idleness than after the year's work.

In Wayne County, Ohio, a score of farmers selected for their representative character were studied. It was found that while one-third of them prospered in a satisfactory way, another third of them had a minus quantity for all their work. It is no wonder that farming communities are unstable.

The problem of the church and school in the country is bound up with this question of income. If the farmer has not an income in return for his labor, he cannot afford to improve social institutions. When his land increases in price he can borrow more money at the bank and use it to improve productive implements. He can erect silos, drain his land, buy pure-bred stock, but on borrowed money he cannot rebuild the church or increase the minister's salary or consolidate the schools. These things will wait until all the farmers in the community have an adequate income. For this reason the church has every motive to support the demand for co-operative credit in the country. Every denomination ought to stand behind the President of the United States in his message to the governors in favor of co-operative credit in the country. Unless the farmer does well enough to be satisfied, unless his son can borrow money at a low rate and buy a farm, unless the renter can become an owner, the churches in the

country will continue to lose ground and the schools in the country can never be improved.

MINNESTOA CORN WINS FIRST PRIZE AT MINNEAPOLIS LAND EXPOSITION

Minnesota won the Northern Pacific Railway's silver cup for the best bushel of corn on exhibition at the Northwest Land Products Show in Minneapolis, which closed on November 23, 1912. Silver King was the variety of corn that won this coveted prize; and the grower was Mr. J. W. Beckman of Cokato, Wright County, Minn.

Mr. Beckman is no novice at corn raising. Silver King is his favorite, and he has recently won prizes with this same variety at the following fairs and shows:

Minnesota State Fairs, 1911 and 1912.
Mid-Winter Seed Fair, Saint Paul, 1912.
Central Minnesota Corn Show, 1911.
Northwest Farmstead Corn Show, Brookings, S. D.
National Corn Show, Omaha.

Mr. Beckman claims for this corn early maturity; uniform and large ears; deep grains; and a yield of from 75 to 100 bushels an acre.

On the final day of the Exposition, the Northern Pacific Railway exchanged with Mr. Beckman, the beautiful silver cup for this excellent bushel of corn. The railway company will show these choice ears on its exhibit cars for a season and then send them to some of the fertile valleys of the west, where corn is now being raised at

great profit, that the seed may become acclimated in other territory tributary to the Northern Pacific.

25 Beautiful Gold

and embossed cards; assorted; only 10c
MODERN FARMER

Eldon, - - - - - Missouri



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Before buying any kind of winter robe send for our beautiful book. Packed from cover to cover with useful fur robe information—an education to every user. It's free. Write today.

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Superior, - Wisconsin

Use Caution—Don't be Defrauded!

The great popularity and the heavy demand for the famous Martha Washington Comfort Shoes made only by the F. Mayer Boot & Shoe Co. of Milwaukee, have caused dishonest dealers to sell cheap and inferior imitations to their customers when the genuine Martha Washington was wanted and asked for.

Mayer's Martha Washington Comfort Shoes

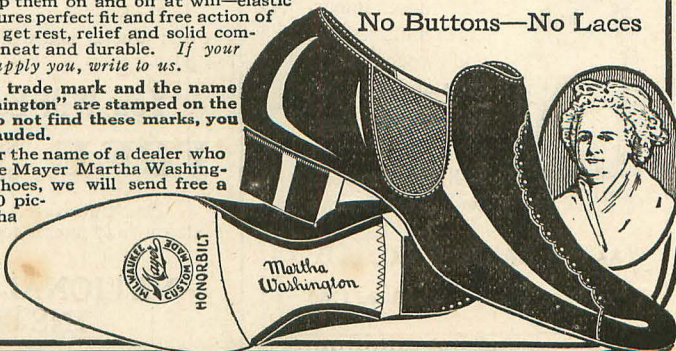
You can slip them on and off at will—elastic at the sides insures perfect fit and free action of the foot. You get rest, relief and solid comfort. Dressy, neat and durable. If your dealer cannot supply you, write to us.

The Mayer trade mark and the name "Martha Washington" are stamped on the sole. If you do not find these marks, you are being defrauded.

FREE—For the name of a dealer who does not handle Mayer Martha Washington Comfort Shoes, we will send free a beautiful 15x20 picture of Martha Washington.

**F. Mayer Boot
& Shoe Co.
Milwaukee.**

No Buttons—No Laces



Seasonable Receipts

Plum Pudding

One heaping cup bread crumbs, 1 cup chopped apples, 2 cups flour, 1 cup suet, chopped fine, 1 cup currants, 1 cup raisins, 1 cup molasses, 1 cup sweet milk, 1 tablespoon soda in molasses, 1 teaspoon salt, three-fourths teaspoon cloves, 1 teaspoon cinnamon. Steam 3 hours over boiling water.

Graham Pudding

One and one-half cups sugar, one-half cup melted butter, one-half cup molasses, one-half cup hot water, one egg and one tablespoon vinegar. One teaspoon soda dissolved in hot water, one-half teaspoon cinnamon, one-half teaspoon cloves, two cups flour and one-half cup raisins. Steam one and one-fourth hours.

Oatmeal Cookies

One cupful sugar, one cupful lard and butter mixed, yolks of 2 eggs. Beat to a cream and add 4 tablespoonfuls sweet milk, one cupful currants, two cupfuls flour, 1 teaspoonful soda, one teaspoonful salt and one teaspoonful cinnamon. Sift all together over the currants. Add two beaten whites of eggs and two cupfuls of oatmeal. Stir all together and drop into greased pan by spoonfuls.

Hermits

One and one-half cupfuls brown sugar, one cupful butter, three eggs, one-half tablespoonful soda dissolved in two tablespoonfuls hot water, a little nutmeg, pinch

of salt, one and one-half cupfuls raisins, three and one-half cupfuls flour in which one teaspoonful cream of tartar has been sifted and one-fourth cupful of butter-milk. Drop the dough from spoon in disconnected cakes.

Raised Doughnuts

Place one pint of yeast foam bread sponge in a large bowl. Add one-fourth cupful melted butter, one-half cupful sugar, two eggs beaten very light, pinch salt, one-half teaspoonful ground cinnamon, one-half teaspoonful ground nutmeg. Roll out and cut into shape, letting them remain on board until light. Fry in deep fat and drain on white paper.

To Blanch Almonds

Shell and pour boiling water over; let stand 10 minutes, the brown skin will come off easily.

Fondant for French Candies

One cupful granulated sugar, enough milk to dissolve sugar, perhaps one-half cupful. Stir on stove till dissolved; do not let boil. Remove grains of sugar around edges and spoon. Boil without

stirring; try in water, make a firm but not crisp ball; set in cold water till you can bear your fingers in it. Stir and beat. Knead as it begins to harden. Put flavor in while creamy. To this you can add chopped nuts, cocoanut or candied fruits. Shape fondant into rolls, dip into melted chocolate for chocolate creams. Handle rolls of fondant with tongs.

Sea Foam

Two cupfuls white sugar, two tablespoonfuls corn syrup, one-half cupful of water and the white of one egg. Boil sugar, syrup and water together until it strings. Have the white of egg beaten to a stiff froth and beat it quickly into the hot mixture immediately after removing from the fire. Beat until creamy and pour out into a buttered plate. Add chopped nuts or chocolate for variety.

Salted or Roasted Almonds

One pound of almonds; remove skins by plunging in boiling water. Put with them a tablespoonful of melted butter and one of salt. Stir them until well mixed. Then spread over a baking pan and bake fifteen minutes or till crisp, stirring often.

Peanut Candy

Two cupfuls sugar, two cupfuls peanuts. Have pan smoking hot. Put in sugar and keep stirring until fully dissolved. Add

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The demand for photoplays is practically unlimited. The big film manufacturers are “moving heaven and earth” in their attempts to get enough good plots to supply the ever-increasing demand. They are offering \$100 and more, for single scenarios, or written ideas.

We have received many letters from the film manufacturers, such as VITAGRAPH, EDISON, ESSANAY, LUBIN, SOLAX, IMP, REX, RELIANCE, CHAMPION, COMET, MELIES, ETC., urging us to send photoplays to them. We want more writers and we'll gladly teach you the secrets of success.

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the peanuts and immediately pour into buttered tins.

Chocolate Fudge

Two cupfuls of granulated sugar, one square chocolate, one cupful of milk, butter size of a walnut. Boil until when dropped in water it will form a ball, by stirring. Pour into buttered pan and cool slightly. Beat until creamy, add a pinch of cream of tartar or soda to make it light and creamy. Cut in squares. This receipt is good.

Parker House Rolls

Mix in bowl one heaping tablespoonful butter, one tablespoonful sugar, and one-half teaspoonful salt, with eight cups flour; make hole in flour and pour in one pint scalded milk, still warm, and one-half yeast cake dissolved in a little water; stir

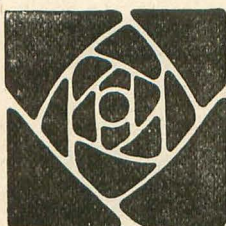
in part of the flour, mixing thoroly, and let rise over night; knead again, using remainder of flour, and let rise until afternoon; roll out, cut, butter, and fold as for French rolls; set in warm place and when light enough, bake.

Currant Buns

To be served hot from the oven. Mix two heaping teaspoonfuls baking powder and one-half teaspoonful salt with four cups flour; mix in well butter the size of an egg, and add enough milk to make a soft dough; roll out one-half inch thick, spread with sugar, then with English currants, then with another sprinkling of sugar and a dusting of cinnamon; roll up as for jelly roll; cut in 2-inch lengths, and bake on end, in buttered pans, in quick oven.

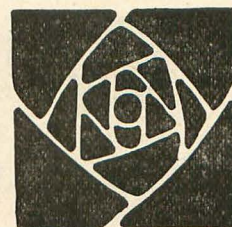
Apple Tapioca Pudding

Peel one-half dozen sour apples; if perfect, simply core, otherwise cut in halves, core, and place halves together; place in buttered pudding dish, sprinkle with sugar, cover with a plate, and bake until well done. Then over them pour one cupful tapioca which has been softened by soaking three hours in three pints water on back of range. Hard tapioca is an abomination; apply a gentle heat for a long time, or soak over night. The tapioca should be sweetened slightly and flavored with lemon extract. Return to oven and bake until browned on top. Let cool to a jelly, and serve with cream and sugar. If the Minute Tapioca is used, of course there will not be need of the long soaking.



WE REMEMBER THE HUMORIST WHO LOOKED AT ONE OF THOSE GREAT BIG POTATOES ON A DINING-CAR OF THE NORTHERN PACIFIC, AND, IN ASTONISHMENT, TURNED TO THE CONDUCTOR AND SAID, "JINGOES! IT WOULDN'T TAKE MANY OF THEM TO MAKE A DOZEN."

(FRA ELBERTUS)



When Passengers Are Moved to Comment Like This, It Means Something:

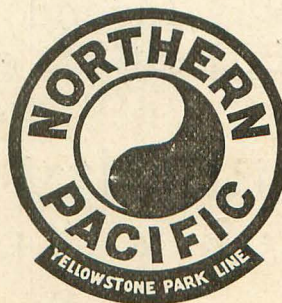
"I had a most pleasant trip over your road and wish to compliment you and the management upon the same. From conductor down to porter they were a nice, obliging and pains-taking set of men. The dining car service is something to be proud of. I asked the waiter the first night if he hadn't made a mistake in that order for baked potatoes and brought me a pumpkin! He said he had not. I told him that hereafter I would take my baked potatoes on the installment plan."

¶This reputation for excellence is fast becoming country-wide---and it is even spreading abroad.

YOUR TICKET SHOULD READ VIA THE NORTHERN PACIFIC.

J. A. G. Risk, Agent
LISBON, N. D.

A. M. CLELAND, Gen'l Pass'r Agt., St. Paul.





Why "Mound City" House Paint HOLDS Its Gloss

WHY do you see so many dull,
faded-looking houses?

The trouble with such houses is that they are Oil-hungry. They are painted with a paint that has not enough Linseed Oil in it—a paint that never *could* have enough Oil in it on account of the character of the pigments used.

The best Paint *must* do two things. It must preserve and beautify. Do you know that Linseed Oil is *the* great preservative in Paint and that if it were not for the sake of appearance, you could give your house a coat of pure Linseed Oil, and it would be protected?

The solid part of Paint (Strictly Pure White Lead, Strictly Pure Zinc, and, in some Paints, baser metals) acts as beautifier only.

Strictly Pure Zinc absorbs more Oil than any other pigment and that is the reason for its use in Horse Shoe Paint. WHITE LEAD is used for its covering qualities, and ZINC for its *Oil-carrying* capacity.

And Oil-carrying capacity is what your Paint *must have* if your property is to be protected.

Horse Shoe Paint, while it covers and beautifies the surface thoroughly, is made of pigments that carry so much oil, that the *first* coat satisfies the oil-hunger of the wood leaving the second coat to gloss, harden, protect, and beautify.

That's why Mound City Horse Shoe Brand House Paint HOLDS its gloss.

Mound City Paint & Color Co.

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St. Louis, U. S. A.